

## CLAIMS

1. A lubrication system for an internal combustion engine, the system comprising:
  - an oil pump driven by the engine and supplying pressurized oil through a main oil feed to a main bearing gallery, a cam gallery, and a
  - 5 hydraulically actuated device; and
  - a pressure reducing valve connected between the pump and the cam gallery and operative to selectively limit oil flow to the cam gallery and thereby raise oil pressure supplied to the main bearing gallery and hydraulically actuated device to a desired operating level greater than the oil
  - 10 pressure supplied to the cam gallery.
2. A system as in claim 1 wherein the hydraulically actuated device is a cam phaser.
3. A system as in claim 1 wherein the hydraulically actuated device is a series of switching lifters.
4. A system as in claim 1 wherein the hydraulically actuated device is a stepping valve train.
5. A system as in claim 2 wherein the pressure reducing valve includes an open orifice limiting oil flow to the cam gallery to maintain a desired minimum oil pressure to the main bearing gallery and cam phaser at lower engine speeds.
6. A system as in claim 2 wherein the pressure reducing valve maintains adequate cam phaser oil pressure during engine operation.

7. A system as in claim 2 wherein the pressure reducing valve increases oil pressure to the cam phaser as engine speed increases.

8. A system as in claim 1 wherein the cam gallery receives oil from the main bearing gallery.

9. A system as in claim 1 including an oil pickup connected with an inlet of the pump to draw in oil from an engine oil pan.

10. A system as in claim 1 including an oil filter connected between the outlet of the oil pump and the main oil feed.

11. A system as in claim 1 wherein the pressure reducing valve maintains a constant oil pressure in the cam gallery during engine operation.